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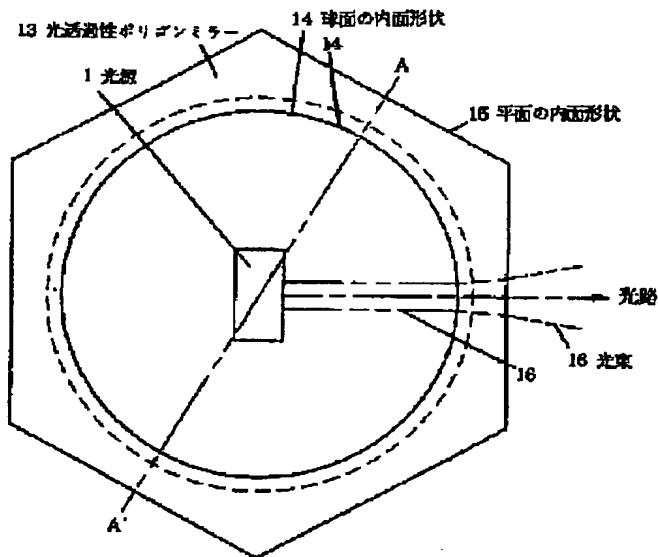
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TITLE : SCANNING OPTICAL DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To make a device small in size by involving a light source inside a polygon mirror and giving lens action to the inner and outer surfaces of the polygon mirror.

SOLUTION: The inner shape of a light transmissive polygon mirror 13 is a spherical surface and a light source 1 is arranged on the center of curvature and on the optical axis toward a second image forming optical system. The outer shape is a plane and a polygonal shape and arranged so as to be parallel with the central axis of rotation of the light transmissive polygon mirror 13. When a light beam 16 from the light source 1 is transmitted through the light transmissive polygon mirror 13 in the main and sub-scanning direction, it becomes a divergent luminous flux and travels to a second image forming optical system. When the light transmissive polygon mirror 13 is rotated, it scans the luminous flux 16 from the light source 1, also serves as a first lens of the second image forming optical system at the same time and the miniaturization of the scanning optical system is realized.

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